Modeling 201010 Clothianidin NU Cotton Seed Mustard Seed

Clothianidin cotton seed application rate = 0.0633 lb ai / A.

Assumptions:

4500 seeds / pound

81000 seeds / acre

Seed treatment rate = $2.4 \, \text{fl}$ oz / $100,000 \, \text{(cwt)}$ seed; PONCHO /VOTiVO contains $4.17 \, \text{pounds}$ clothianidin per gallon ($40.3\% \, \text{clothianidin}$).

Clothianidin mustard seed application rate = 0.0288 lb ai / A.

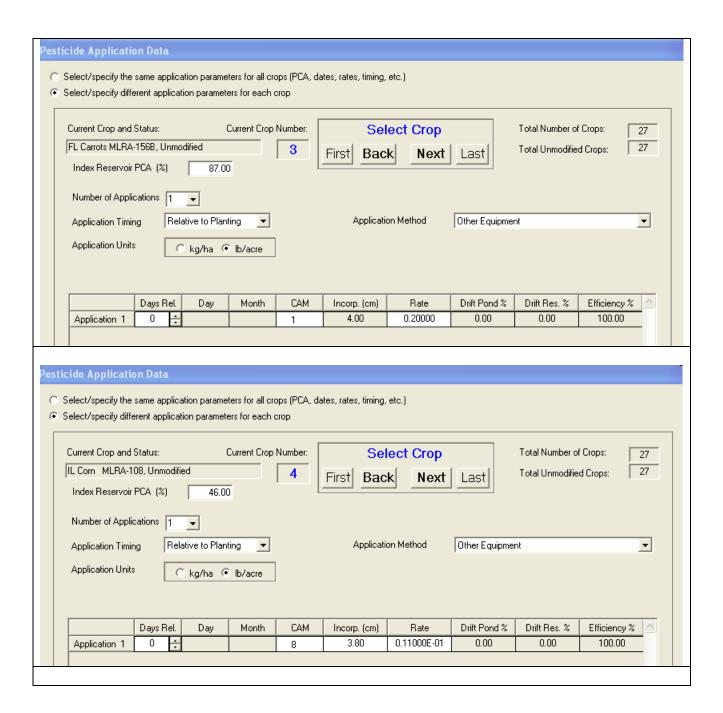
Assumptions:

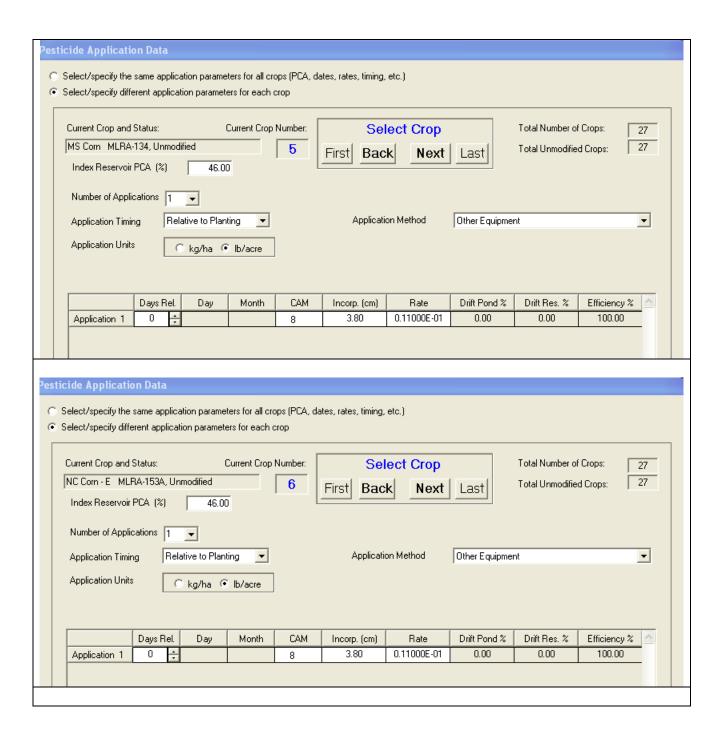
7 lbs seed / acre

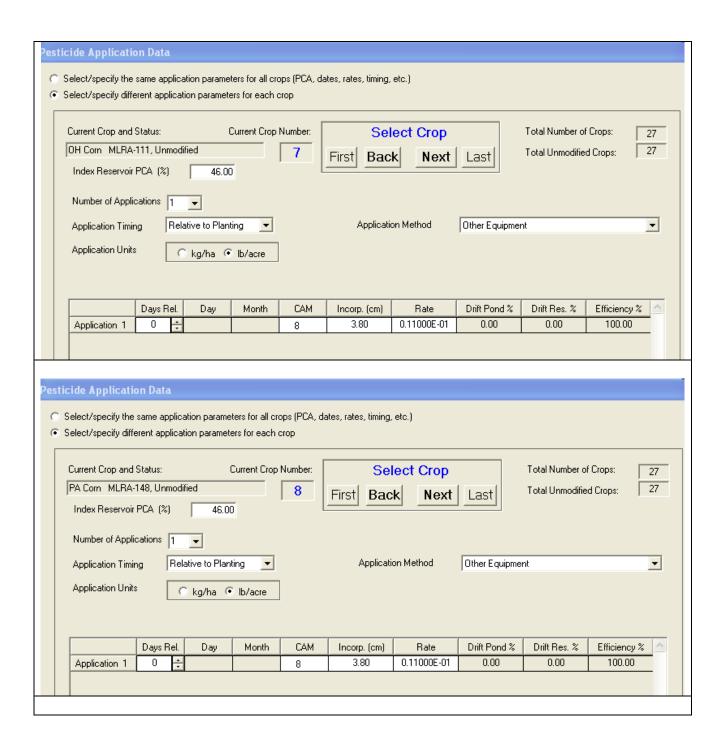
Seed treatment rate = 21.5 fl oz product (0.40 lbs ai) / 100,000 (cwt) seed; Prosper T400 contains 2.38 pounds clothianidin per gallon (21.75% clothianidin).

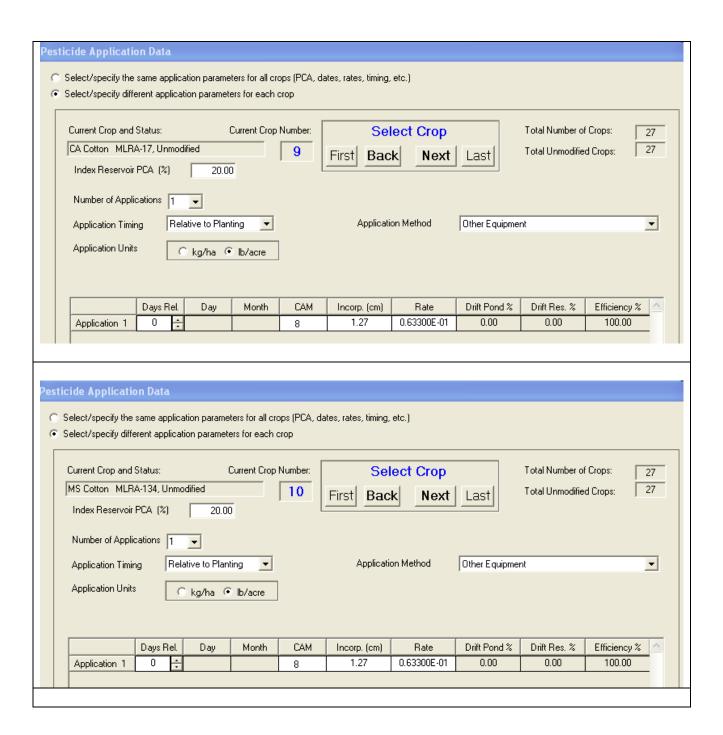
Day of Application (mm-dd)	CA Cotton = 04-24 MS Cotton = 04-24 NC Cotton = 05-25 ND Canola = 05-09
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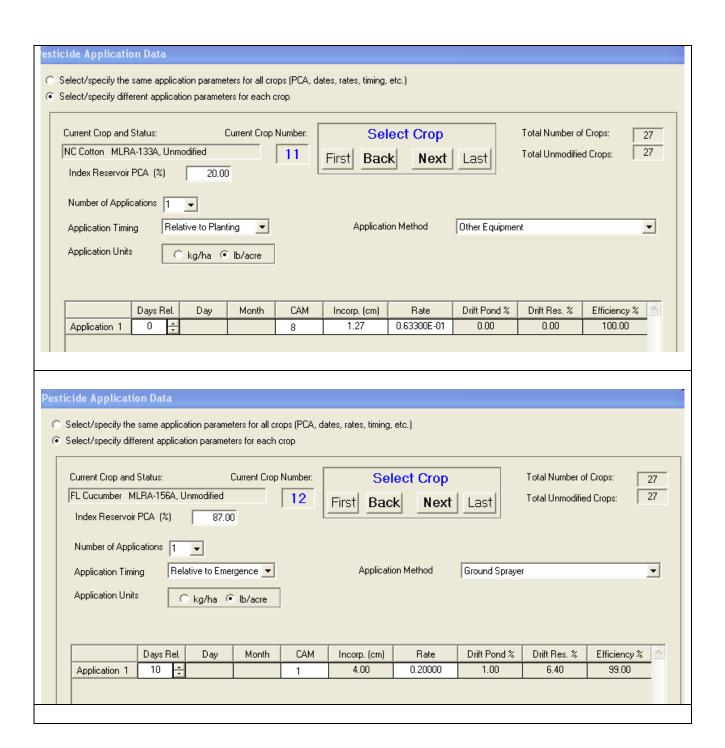
Complete Summary of Pesticide Application Data – CAM 8 + Others EXPRESS Project Updated with new Aerobic Aquatic Metabolism value for input C Select/specify the same application parameters for all crops (PCA, dates, rates, timing, etc.) Select/specify different application parameters for each crop. Current Crop and Status: Current Crop Number: Select Crop Total Number of Crops: 27 FL Cabbage MLRA-155, Unmodified 27 Total Unmodified Crops: Back Next Last Index Reservoir PCA (%) Number of Applications 1 Relative to Planting Application Method Ground Sprayer ▼ Application Timing Application Units C kg/ha 🕟 lb/acre Drift Pond % Drift Res. % Days Rel. Day Month CAM Incorp. (cm) Rate Efficiency % 4.00 0.20000 1.00 6.40 99.00 Application 1 C Select/specify the same application parameters for all crops (PCA, dates, rates, timing, etc.) Select/specify different application parameters for each crop Current Crop and Status: Current Crop Number: Total Number of Crops: Select Crop 27 ND Canola MLRA-55A, Unmodified 27 2 Total Unmodified Crops: First Back Next Last Index Reservoir PCA (%) 87.00 Number of Applications 1 Relative to Planting Application Method Other Equipment ▼ Application Timing Application Units C kg/ha 💽 lb/acre Efficiency % Month Drift Pond % Drift Res. % Days Rel. Day CAM Incorp. (cm) Rate 100.00 0.28000E-01 0.00 0.00 Application 1 8 1.27

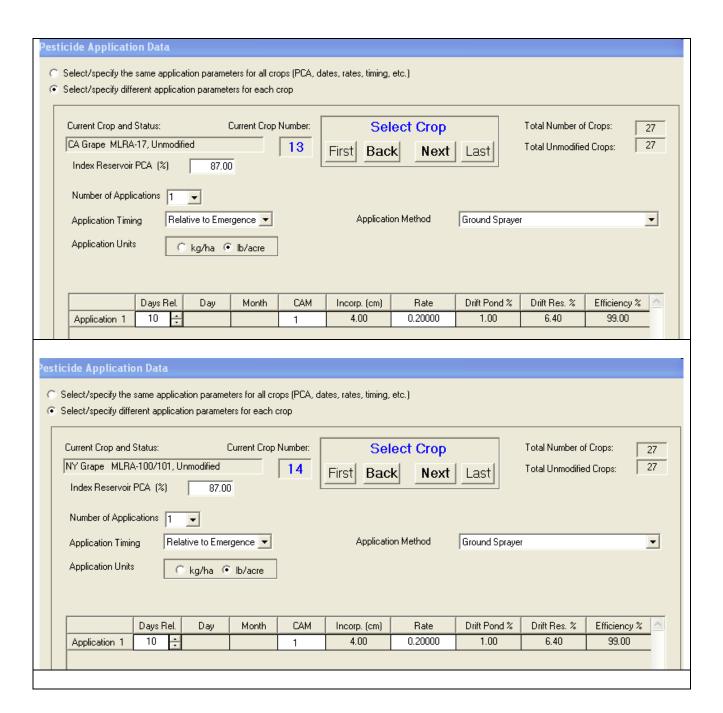


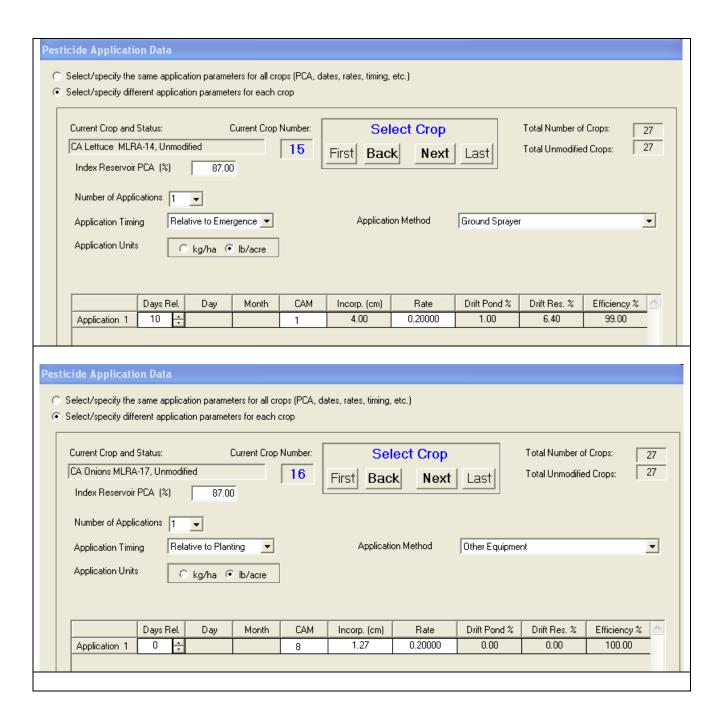


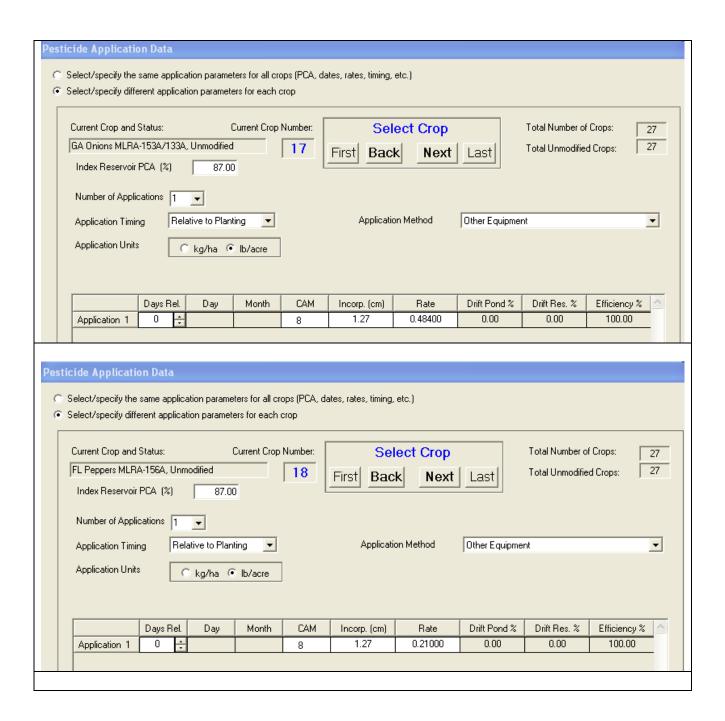


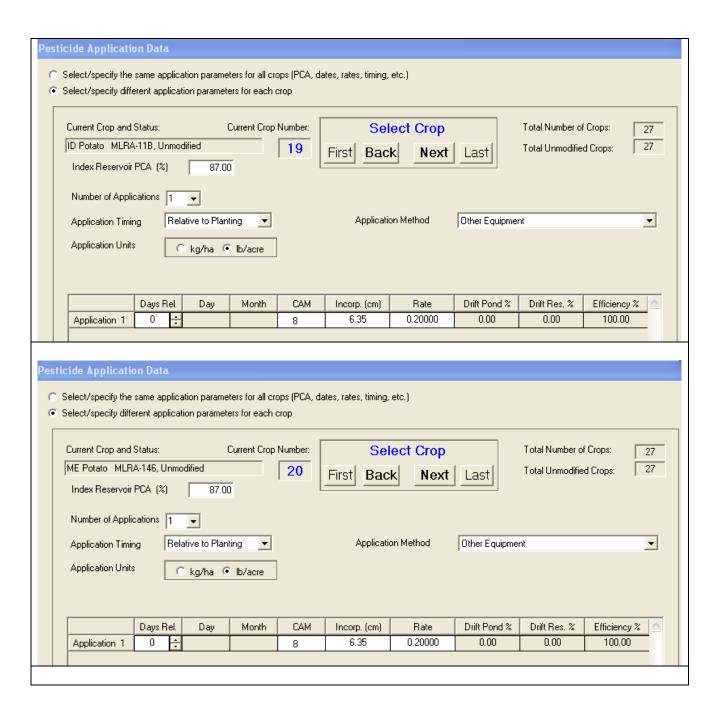


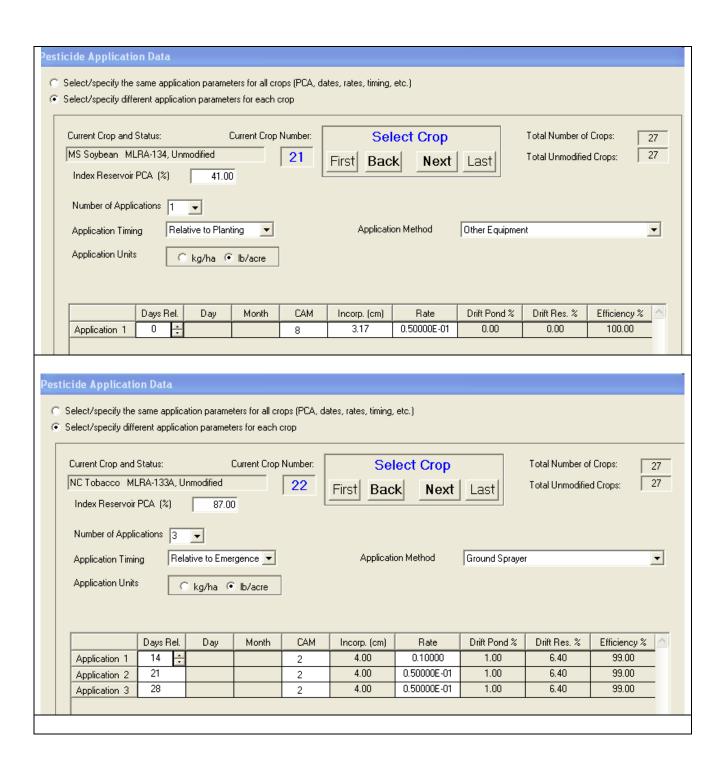


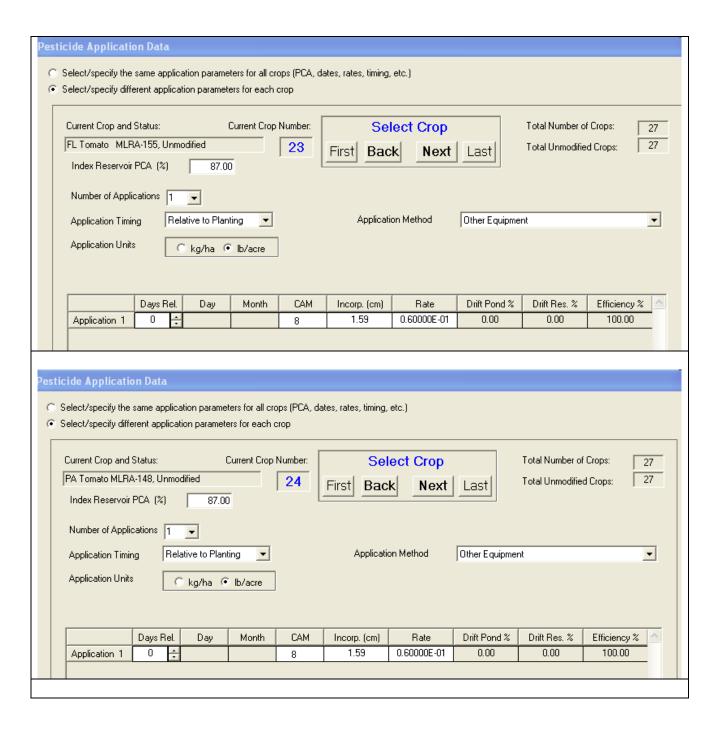


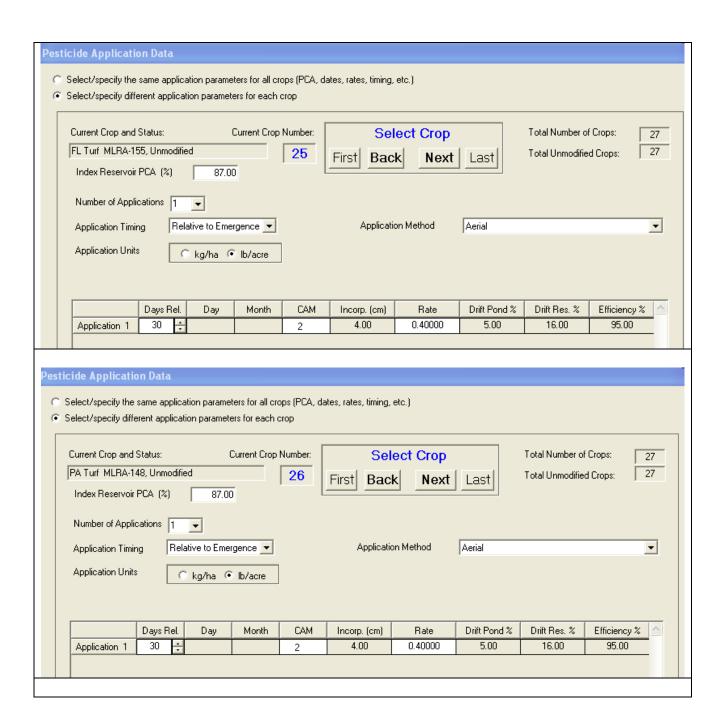


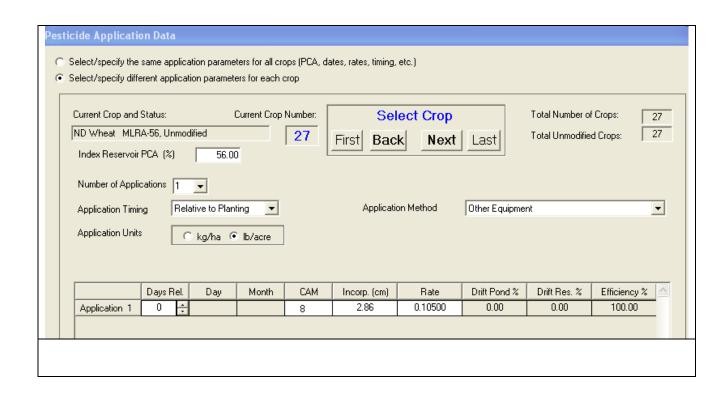












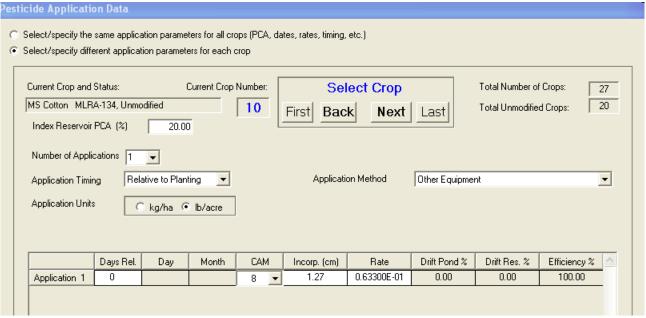


Figure 1. Second set of runs, CAM = 8 (example pesticide application data)

Table 1. . Mostly CAM = 8 plus some CAM = 1 or 2 runs (pond water).

Upper 10th Percentile Limnetic EECs in Farm Pond

Chemical - Clothianidin

Scenarios	Instantaneous	96-Hour	21-Day	60-Day	90-Day	Annual
RUN ID: FL1Car-P	17.4	17.2	16.8	15.9	14.4	9.15
RUN ID: GA10ni-P	16.7	16.7	16.5	16.1	15.8	10.8
RUN ID: FL1Cuc-P	10.8	10.8	10.6	10.2	8.85	6.13
RUN ID: CA1Let-P	7.33	7.30	7.15	6.86	6.67	5.26
RUN ID: FL1Pep-P	5.79	5.75	5.62	5.30	5.11	3.41
RUN ID: FL1Cbb-P	5.58	5.54	5.43	5.22	4.82	3.42
RUN ID: PA1Tur-P	4.47	4.46	4.39	4.28	4.14	3.41
RUN ID: FL1Tur-P	3.05	3.04	2.97	2.85	2.76	2.17
RUN ID: NY2Gra-P	2.26	2.25	2.23	2.16	2.13	1.65
RUN ID: NC1Ctt-P	1.57	1.55	1.53	1.48	1.45	1.15
RUN ID: MS1Ctt-P	1.47	1.46	1.42	1.36	1.31	0.958
RUN ID: CA1Gra-P	1.11	1.10	1.08	1.02	0.993	0.701
RUN ID: NC1Tba-P	0.983	0.977	0.955	0.935	0.916	0.693
RUN ID: CA10ni-P	0.529	0.526	0.515	0.492	0.478	0.360
RUN ID: FL1Tma-P	0.525	0.521	0.505	0.483	0.472	0.339
RUN ID: PA1Tma-P	0.399	0.397	0.389	0.375	0.364	0.302
RUN ID: ND1Cno-F	0.259	0.258	0.254	0.244	0.238	0.191
RUN ID: CA1Ctt-P	0.143	0.143	0.142	0.139	0.137	0.112
RUN ID: IL1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00
RUN ID: MS1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00
RUN ID: NC1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00
RUN ID: OH1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00
RUN ID: PA1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00
RUN ID: ID1Pot-P	0.00	0.00	0.00	0.00	0.00	0.00
RUN ID: ME1Pot-P	0.00	0.00	0.00	0.00	0.00	0.00
RUN ID: MS1Syb-P	0.00	0.00	0.00	0.00	0.00	0.00
RUN ID: ND1Whe-F	0.00	0.00	0.00	0.00	0.00	0.00

Express v. 1.03.02 (2007-07-20) - Exams 2.98.04.06 with PRZM 3.12.2[48]

Table 2. Mostly CAM = 8 plus some CAM = 1 or 2 runs (pond benthic).

Upper 10th Percentile Benthic EECs in Farm Pond

Chemical - Clothianidin

Chemical - Clothianidin							
Scenarios	Instantaneous	96-Hour	21-Day	60-Day	90-Day	Annual	
RUN ID: GA10ni-P	11.8	11.8	11.8	11.1	9.97	7.30	
RUN ID: FL1Car-P	9.47	9.46	9.38	9.14	8.81	6.46	
RUN ID: FL1Cuc-P	6.05	6.03	5.77	5.48	5.42	4.21	
RUN ID: CA1Let-P	4.67	4.67	4.66	4.64	4.62	3.96	
RUNID: FL1Cbb-P	3.45	3.45	3.44	3.14	2.80	2.22	
RUN ID: FL1Pep-P	3.12	3.12	3.11	3.05	2.98	2.11	
RUNID: PA1Tur-P	2.85	2.85	2.84	2.81	2.77	2.62	
RUNID: NY2Gra-P	1.89	1.87	1.80	1.65	1.60	1.38	
RUNID: FL1Tur-P	1.82	1.82	1.82	1.80	1.77	1.47	
RUN ID: NC1Ctt-P	0.999	0.999	0.999	0.997	0.988	0.844	
RUNID: MS1Ctt-P	0.810	0.810	0.808	0.801	0.791	0.694	
RUNID: CA1Gra-P	0.600	0.600	0.600	0.591	0.578	0.443	
RUNID: NC1Tba-P	0.584	0.584	0.584	0.582	0.578	0.510	
RUNID: CA10ni-P	0.323	0.323	0.322	0.318	0.315	0.241	
RUN ID: FL1Tma-P	0.288	0.288	0.287	0.283	0.279	0.216	
RUN ID: PA1Tma-P	0.284	0.284	0.284	0.282	0.278	0.221	
RUN ID: ND1Cno-P	0.173	0.173	0.173	0.172	0.171	0.152	
RUNID: CA1Ctt-P	0.109	0.109	0.109	0.109	0.107	0.710E-01	
RUN ID: IL1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00	
RUNID: MS1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00	
RUNID: NC1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00	
RUNID: OH1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00	
RUN ID: PA1Cor-P	0.00	0.00	0.00	0.00	0.00	0.00	
RUN ID: ID1P ot-P	0.00	0.00	0.00	0.00	0.00	0.00	
RUN ID: ME1Pot-P	0.00	0.00	0.00	0.00	0.00	0.00	
RUN ID: MS1Syb-P	0.00	0.00	0.00	0.00	0.00	0.00	
RUN ID: ND1Whe-P	0.00	0.00	0.00	0.00	0.00	0.00	

Express u. 1.03.02 (2007-07-20) - Exams 2.98.0+.06 with PRZM 3.12.2[48]

Table 3. Mostly CAM = 5 plus some CAM = 1 or 2 runs (pond water).

Upper 10th Percentile Limnetic EECs in Farm Pond

Chemical - Clothianidin

	Chemical - Ciothlanidin					
Scenarios	Instantaneous	96-Hour	21-Day	60-Day	90-Day	Annual
RUN ID: GA10ni-	P 31.4	31.2	30.6	29.3	27.9	18.6
RUN ID: FL1Car-F	17.4	17.2	16.8	15.9	14.4	9.15
RUN ID: FL1Cuc-	10.8	10.8	10.6	10.2	8.85	6.13
RUN ID: FL1Pep-	10.6	10.6	10.4	9.85	9.44	6.06
RUN ID: CA1Let-F	7.33	7.30	7.15	6.86	6.67	5.26
RUN ID: FL1Cbb-	P 5.58	5.54	5.43	5.22	4.82	3.42
RUN ID: PA1Tur-F	4.47	4.46	4.39	4.28	4.14	3.41
RUN ID: FL1Tur-F	3.05	3.04	2.97	2.85	2.76	2.17
RUN ID: NC1Ctt-F	3.00	2.98	2.91	2.82	2.76	2.18
RUNID: M\$1Ctt-F	2.80	2.78	2.74	2.62	2.53	1.85
RUNID: NY2Gra-	P 2.26	2.25	2.23	2.16	2.13	1.65
RUN ID: FL1Tma-	P 1.15	1.14	1.11	1.07	1.06	0.829
RUN ID: CA1Gra-	P 1.11	1.10	1.08	1.02	0.993	0.701
RUN ID: MS1Syb-	P 1.07	1.07	1.05	1.01	0.976	0.708
RUN ID: CA10ni-l	1.07	1.06	1.04	0.997	0.967	0.729
RUN ID: PA1Tma	P 0.998	0.998	0.978	0.943	0.916	0.759
RUN ID: NC1Tba-	P 0.983	0.977	0.955	0.935	0.916	0.693
RUN ID: ND1Whe	P 0.796	0.793	0.782	0.770	0.757	0.629
RUN ID: ND1Cno-	P 0.491	0.488	0.480	0.462	0.450	0.367
RUN ID: CA1Ctt-F	0.310	0.309	0.306	0.300	0.296	0.224
RUN ID: ME1Pot-	P 0.265	0.265	0.264	0.260	0.258	0.214
RUN ID: MS1Cor-	P 0.152	0.151	0.148	0.141	0.137	0.106
RUN ID: IL1Cor-P	0.672E-01	0.668E-01	0.663E-01	0.641E-01	0.623E-01	0.508E-01
RUN ID: OH1Cor-	P 0.556E-01	0.553E-01	0.539E-01	0.524E-01	0.510E-01	0.438E-01
RUN ID: PA1Cor-I	0.369E-01	0.367E-01	0.362⊑-01	0.351⊑-01	0.344E-01	0.302E-01
RUN ID: ID1Pot-P	0.313E-01	0.312E-01	0.311E-01	0.306E-01	0.303E-01	0.228E-01
RUN ID: NC1Cor-	P 0.305E-01	0.304E-01	0.302E-01	0.296E-01	0.292E-01	0.224E-01

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Table 4. Mostly CAM = 5 plus some CAM = 1 or 2 runs (pond benthic).

Upper 10th Percentile Benthic EECs in Farm Pond

Chemical - Clothianidin

Chemical - Clothlamath							
Scenarios	Instantaneous	96-Hour	21-Day	60-Day	90-Day	Annual	
RUN ID: GA10ni-P	20.8	20.8	20.7	19.5	17.4	12.5	
RUN ID: FL1Car-P	9.47	9.46	9.38	9.14	8.81	6.46	
RUN ID: FL1Cuc-P	6.05	6.03	5.77	5.48	5.42	4.21	
RUN ID: FL1Pep-P	5.78	5.78	5.75	5.64	5.52	3.81	
RUN ID: CA1Let-P	4.67	4.67	4.66	4.64	4.62	3.96	
RUN ID: FL1Cbb-P	3.45	3.45	3.44	3.14	2.80	2.22	
RUN ID: PA1Tur-P	2.85	2.85	2.84	2.81	2.77	2.62	
RUN ID: NC1Ctt-P	1.90	1.89	1.89	1.88	1.86	1.62	
RUN ID: NY2Gra-P	1.89	1.87	1.80	1.65	1.60	1.38	
RUN ID: FL1Tur-P	1.82	1.82	1.82	1.80	1.77	1.47	
RUN ID: MS1Ctt-P	1.58	1.58	1.58	1.56	1.54	1.36	
RUN ID: FL1Tma-P	0.766	0.766	0.764	0.753	0.743	0.573	
RUN ID: PA1Tma-F	0.717	0.717	0.717	0.711	0.708	0.573	
RUN ID: CA10ni-P	0.657	0.657	0.657	0.650	0.643	0.492	
RUN ID: MS1Syb-P	0.609	0.609	0.607	0.601	0.592	0.451	
RUN ID: CA1Gra-P	0.600	0.600	0.600	0.591	0.578	0.443	
RUN ID: NC1Tba-P	0.584	0.584	0.584	0.582	0.578	0.510	
RUN ID: ND1Whe-f	0.581	0.581	0.580	0.577	0.575	0.510	
RUN ID: ND1Cno-F	0.332	0.332	0.332	0.330	0.329	0.293	
RUN ID: CA1Ctt-P	0.216	0.216	0.216	0.214	0.212	0.151	
RUN ID: ME1Pot-P	0.205	0.205	0.205	0.204	0.202	0.167	
RUN ID: MS1Cor-P	0.932E-01	0.930E-01	0.925E-01	0.908E-01	0.888E-01	0.766E-01	
RUN ID: IL1Cor-P	0.432E-01	0.432E-01	0.432E-01	0.430E-01	0.428E-01	0.385E-01	
RUN ID: OH1Cor-P	0.394E-01	0.394E-01	0.394E-01	0.391E-01	0.385E-01	0.311E-01	
RUN ID: PA1Cor-P	0.266€-01	0.266E-01	0.265E-01	0.262E-01	0.258E-01	0.227E-01	
RUN ID: ID1Pot-P	0.222E-01	0.222E-01	0.222E-01	0.220E-01	0.217E-01	0.171E-01	
RUN ID: NC1Cor-P	0.188E-01	0.188E-01	0.187E-01	0.185E-01	0.182E-01	0.164E-01	

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